

Subspeciation in the Afrotropical Gabar Goshawk *Micronisus gabar*

by P. A. Clancey

Received 21 January 1987

The Gabar Goshawk *Micronisus gabar* (Daudin), 1800: Graaff-Reinet, eastern Cape, is extensively distributed in the savanna woodlands from Senegal and The Gambia, east to the north of the Lower Guinea Forest to Ethiopia, Somalia and the southwestern mountains of the Arabian Peninsula, south in the east of the continent to the South African Sub-Region, where it tends to be sparse in semi-desertic karoooid country and absent from the southwestern and southern Cape. In the south of the range it is most numerous in regions with the annual rainfall below 500 mm.

M. gabar is strongly dimorphic, with perhaps as many as a fourth of collected specimens being melanistic variants lacking the white rump of the norm, the upper- and under-parts and wing-coverts sooty black rather than bluish grey, and the venter lacking barring. Melanistic examples are on record from the entire range, but with a trend to be more numerous in mesic areas (*vide* Brown 1986). While the species is currently normally treated as monotypic, the fact that this predator varies geographically has been known for well over a century, the population occurring immediately to the south of the Sahara from Senegal to Ethiopia with the wings and tail substantially longer than in the case of eastern and southern African birds. In his *Monograph*, Swann (1930) recognised 2 subspecies:— *M.g. gabar* in the eastern and southern parts of Africa, and *M.g. niger* (Vieillot), 1823: Senegal, in the dry savanna country immediately south of the Sahara, east to northern Ethiopia (including Eritrea) and the southwestern highlands of the Arabian Peninsula. The finding of Swann notwithstanding, the species is currently believed to have no maintainable races (see Brown & Amadon 1968, Amadon 1979 and Brown *et al.* 1982).

A recent study of the pattern of variation in *M. gabar* indicates that it is undesirable to continue treating it as monotypic, in so doing recognising that it comprises 2 relatively large sized races occupying arid vegetational belts in both the northern and southern sectors of the range, the 2 xeric taxa separated by populations of smaller sized and generally darker representatives endemic to the moist equatorial (particularly eastern) parts of the continent. It would seem that the somewhat analogous character states of the northern and southern dry country forms are basic to current belief that the size variation is essentially individual and irregular rather than demonstrably ecologically and regionally based. Names are available for the 2 xeric races, but as none is to hand for the equatorial populations one is introduced below.

The Gabar Goshawk is often viewed as congeneric with the Chanting Goshawks in the genus *Melierax* Gray, 1840, but as it is accipitrine in its hunting strategy and is set apart morphologically (as by its different proportions and mode of wing-moult), uniting the 2 genera seems undesirable. Moreover, *Melierax* spp. (*M. metabates*, *M. canorus* and *M. (c.)*

poliopterus) are unlike *Micronisus* in not being dimorphic. Recently, Colebrook-Robjent (1986) has argued in favour of suppressing *Micronisus* as a synonym of *Melierax*, but Kemp (1986), writing in the same issue of the journal, seemed less certain of the acceptability of such action.

Three races of the Gabar Goshawk are admitted.

Micronisus gabar gabar (Daudin)

Falco gabar Daudin, *Traité d'Ornith.* Vol ii, 1800, p. 87: interior of South Africa, restricted to Swart R., Graaff-Reinet, eastern Cape.

Description. In the grey, ventrally barred morph with the upper-parts and wings approximately silvered Mouse Gray (Ridgway 1912); rump white. Below, with the gorget Pallid Mouse Gray; rest of venter dull white, finely barred with dark grey. In the melanistic morph entire contour plumage (including rump) and wing-coverts sooty black. Barring in wings as in grey morph. Size relatively large (see Table 1).

Material examined. 55 (South West Africa/Namibia, 5; Botswana, 6; northern Cape, 2; Transvaal, 10; Zululand, 1; Zimbabwe, 21; Mozambique (Tete), 3; southern Zambia, 7).

Range. Southwestern and southern Angola, South West Africa/Namibia (except southwest), Botswana, Cape Province (except southwest and south), east to Zimbabwe, southern Zambia, Orange Free State, Transvaal, western Mozambique, eastern Swaziland, and Natal and Zululand.

Remarks. 3 dry season specimens in the collection of the Durban Natural History Museum, 2 adult ♂♂ from "Mkien", Bulawayo, Zimbabwe, with tails 147 mm and 147.5 mm and one from "Malamala" on the border of the Kruger National Park in the eastern Transvaal with the tail 145 mm may be migrants from rather further north, as tails in typical southern males are 156 mm and longer. They are, however, not dark as in the case of tropical birds.

Micronisus gabar aequatorius subsp. nov.

Type: ♂, adult. Cole's Farm, Lake Elmenteita, Rift Valley, Kenya. 23 March 1958. Collected by P. A. Clancey. In the collection of the Durban Natural History Museum, D.M. Reg. No. 758.

Description. Grey morph darker and less silvered over the upper-parts and adjacent wings than in *M.g. gabar* (back approximately greyish Hair Brown, *versus* silvered Mouse Gray). Below, with gorget darker (Drab Gray), and with the mid-venter barring heavier. In the tail, the light interstices to the rectrices are more brownish tinged. Size smaller, the means of wings of ♂♂ 180.5, of ♀♀ 193.5, *versus* ♂♂ 188.5, ♀♀ 205.4 mm.

Differs from *M.g. niger* in its colder and darker, less brownish, grey upper-parts and wings, and with the gorget clearer and darker grey; barring of rest of venter generally coarser. Smaller in size: means of wings of ♂♂ of *M.g. niger* 194.0, of ♀♀ 210.3 mm.

Measurements. See Table 1.

Material examined. 40 (Kenya; "Kenya", Tsavo, Voi, Athi/Tsavo R., Lumbo Plateau, Uasso Nyero, Charles Falls (Uasso Nyero), Mamandu,

TABLE 1
Wing- and tail-length (mm) statistics in the Gabar Goshawk *Micronisus gabar*

Territory	Sex	n	WINGS			n	TAILS		
			range	\bar{x}	SD		range	\bar{x}	SD
<i>Micronisus gabar gabar</i>									
South West Africa,	♂	6	182–195	189.9	6.05	4	157–164	159.7	3.09
Botswana, N. Cape	♀	7	199–206	203.2	2.92	5	159–177	167.6	7.92
Zimbabwe, S. Zambia,	♂	19	182–195	188.4	3.59	10	147–176	162.2	9.68
Mozambique	♀	12	202–213	206.7	3.41	9	166–187	174.4	6.69
Transvaal, Natal,	♂	5	186–192	187.4	2.60	2	145, 151	–	–
Zululand	♀	6	200–211	205.1	4.53	2	156.5, 170	–	–
Wings of 30 ♂♂ 182–195 (188.5), SD 3.98; tails of 16 145–176 (159.8), SD 9.05									
Wings of 25 ♀♀ 199–213 (205.4), SD 3.74; tails of 16 156.5–187 (170.9), SD 8.10									
<i>Micronisus gabar aequatorius</i>									
Kenya, Uganda,	♂	7	173–187.5	179.3	5.96	10	139–151.5	144.7	3.66
Tanzania, Malawi	♀	9	190–198	192.8	2.89	5	157–165	159.4	3.20
N. Zambia	♀	1	194			1	168		
Cameroon	♂	1	187						
Somali, C. and S.	♂	12	171.5–186	179.8	4.73	4	139–147	142.7	3.50
Ethiopia	♀	9	189–200	194.2	4.07	4	157–170	162.5	3.20
Wings of 20 ♂♂ 171.5–187.5 (180.5), SD 5.19; tails of 14 139–151.5 (144.1), SD 3.60									
Wings of 19 ♀♀ 189–200 (193.5), SD 3.40; tails of 10 157–170 (159.4), SD 3.20									
<i>Micronisus gabar niger</i>									
N. Nigeria	♂	1	194			1	168		
	♀	1	213			1	179		
N. Ethiopia and Eritrea	♀	4	204–222	210.2	8.26	4	190–195	191.2	2.50
Saudi Arabia,	♂	1	194			1	166		
S. Yemen	♀	5	200–214	208.2	5.40	5	179–195	188.2	5.89
Wings of 2 ♂♂ 194, 194; tails 166, 168									
Wings of 10 ♀♀ 200–222 (210.3), SD 6.67; tails 179–195 (191.3) SD 7.08									
Statistical comparisons: <i>M.g. aequatorius</i> v. <i>M.g. gabar</i>									
♀♀ wings $t=10.62$ $p<0.001$ $DF=42$									
tails $t=4.12$ $p<0.001$ $DF=24$									
<i>M.g. aequatorius</i> v. <i>M.g. niger</i>									
♀♀ wings $t=8.67$ $p<0.001$ $DF=27$									
tails $t=12.32$ $p<0.001$ $DF=18$									

Simba R., L. Elmenteita; *Uganda*: Karamoja, Mulema; *Tanzania*: Iringa; *Zambia*: Mporokoso; *Malaŵi*: Mzimba, Chiromo; *Somalia*: Daimoli, Hargeisha, Yeloker, Burao, Buramo; *Ethiopia*: Matti, Buggali (Maki R.), L. Zwai, L. Abaya, Afdam (Danakil), L. Helene, Gafartha, Abai R. (L. Tana), Dangila, Yavello; *Cameroon*: Marua.

Range. Moist Ethiopian highlands and western Somalia to the southern Sudan, Kenya and Uganda, Tanzania (absent from littoral), northern Mozambique (in west), Malaŵi, northern Zambia and southern and east Zaïre. Probably to parts of Angola, and north of the Lower Guinea Forest to Cameroon (at Marua).

Measurements of the Type: Wing (flattened) 187.5 mm, tail 151.5 mm.

Remarks: Dowsett, in Snow (1978), has already drawn attention to the darker colouration of the grey morphs in the equatorial parts of the continent.

The small population present in arid Somalia ranges paler and more finely barred below than birds from areas to the west, recalling in some aspects the character state in the austral *M.g. gabar*. The differences are, however, at best slight, and there is no size difference.

***Micronisus gabar niger* (Vieillot)**

Sparverius niger Vieillot, *Tabl. Encycl. Méth. Orn.* Vol iii, 1823, p. 1269: Senegal.

Micronisus niloticus Sundevall, *Oefv. K. Sv. Vet.-Akad. Förhandl.* Vol vii, 1850, p. 132: Sennar, Sudan.

Melierax gabar defensorum Meinertzhagen, *Bull. Brit. Orn. Cl.* Vol lxix, 9, 1949, p. 82: Lodar, South Yemen, at 3100 ft. a.s.l.

Description. Compared with *M.g. aequatorius* lighter, more brownish, grey over the upper-parts, wings and gorget in the grey morph, this often verging on buffy brown on the lower fore-throat in the female. Ventral barring finer, recalling *M.g. gabar*. Size much larger than *M.g. aequatorius*, the tail distinctly longer. Wings of ♂♂ with mean 194, tails 167, of ♀♀ wings mean 210.3, tails 191.3 mm. Still larger than nominate *M. gabar*.

Measurements. See Table 1.

Material examined. 12 (northern Nigeria, 2; Ethiopia (including Eritrea), 4; Saudi Arabia, 3; South Yemen, 3).

Range. Arid sub-Saharan Sahel and Guinean savannas from Senegal, The Gambia, Guinea, Mali, etc., where it is sparse, east to northern Nigeria, northern Cameroon, Chad, Sudan north of Equatoria, northern Ethiopia and the southwestern Arabian Peninsula from Asir Tihama, Saudi Arabia, south to South Yemen.

Remarks. In separating the South Yemen population as *M.g. defensorum*, Meinertzhagen (1949) described it as having a darker, more slate-grey crown and back than in continental African birds. Also in being more heavily marked (barred) below, and with the gorget darker and smokier grey. The size of the new form was given as similar to *M.g. gabar*. Material used in the preparation of this description was examined in 1985 along with the northern Afrotropical specimens in the collection at Tring, when it was concluded that the Arabian Peninsula population was not separable from the birds occurring from northern Ethiopia and Eritrea, west to northern Nigeria. Unfortunately, no Senegal topotypes are in the B.M. collection, but reasoning on the basis of established variation patterns in other polytypic species inhabiting the Sahel and Guinean savanna region of Africa, Senegal and northern Nigerian birds are of the same race. Even in the event of this conclusion being found at fault, *M.g. defensorum* would, nevertheless, be antedated by *Micronisus niloticus* Sundevall, 1850, described from Sennar, Sudan.

This taxon appears to be subject to a measure of post-breeding movement, as one of the specimens in the B.M. collection – a ♀ from Jimma, in Kaffa, southwestern Ethiopia, at 7°40'N, 36°50'E – with a wing of 222 mm is from within the breeding range of *M.g. aequatorius*.

Acknowledgements: For the provision of facilities at Tring I am grateful to Mr P. R. Colston of the British Museum (Nat. Hist.) staff. In South Africa, the resources of the Durban Natural History Museum were made available by Dr J. M. Mendelsohn, while data from material in the National Museum, Bulawayo, collection were kindly extracted by Mr H. D. Jackson and his staff. To all mentioned I extend my thanks.

References:

- Amadon, D. 1979. In Peters' *Check-list of Birds of the World*, Vol 1 (second ed.). Museum of Comparative Zoology.
- Brown, C. J. 1986. Aspects of the biology of the Gabar Goshawk in Namibia. *Gabar* 1 (2): 45-50.
- Brown, L. H. & Amadon, D. 1968. *Eagles, Hawks and Falcons of the World*. Hamlyn for Country Life Books.
- Brown, L. H., Urban, E. K. & Newman, K. 1982. *The Birds of Africa*, Vol 1. Academic Press.
- Colebrook-Robjent, J. F. R. 1986. On the validity of the genus *Micronisus*. *Gabar* 1 (1): 7-8.
- Dowsett, R. J. 1978. In Snow (Ed) *An Atlas of Speciation in African Non-Passerine Birds*. British Museum (Nat. Hist.).
- Kemp, A. C. 1986. The Gabar Goshawk: taxonomy, ecology and further research. *Gabar* 1 (1): 4-6.
- Meinertzhagen, R. 1949. A new race of *Melierax gabar* (Daudin). *Bull. Brit. Orn. Cl.* 69 (9): 82-83.
- Ridgway, R. 1912. *Color Standards and Color Nomenclature*. The author.
- Swann, H. K. 1930. *A Monograph of the Birds of Prey*, Vol 1. Wheldon & Wesley.
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An undescribed plumage of Loria's Bird of Paradise *Loria loriae*

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Received 27 January 1987

Loria's Bird of Paradise *Loria loriae* is a little known, small, sexually dimorphic bird of paradise (Paradisaeidae) of the subfamily Cnemophilinae living in rain forests of the central mountain ranges of New Guinea, from the Weyland Mountains eastward to the southern Owen Stanley Range, at 1500-3000 m (Cooper & Forshaw 1977).

The species was originally described by Salvadori (1894) as *Loria loriae* but De Vis (1894) subsequently made it congeneric with *Cnemophilus macgregorii*. Workers subsequent to De Vis (Gilliard 1969 & references therein, Cooper & Forshaw 1977) replaced it in monotypic *Loria*, but Diamond (1972) had previously again placed it in *Cnemophilus* in view of similarities in female plumage between the 2 birds, citing also ecological and distributional evidence. Whilst Diamond's considerations make this congeneric grouping reasonable, I am inclined to retain *Loria* until something substantial is known of the birds' life histories.

The adult male *Loria loriae* is generally glossy velvety black with iridescent blue-green lores and forehead, a slight purple gloss on upperparts and iridescent blue-green or violet-purple sheens on the inner secondaries. The bill is black, and an obvious fleshy gape and inside mouth